HISTORIC PROPERTY INVENTORY FORM

State of Washington, Department of Community Developme
Office of Archaeology and Historic Preservation
111 21st Avenue Southwest, Post Office Box 48343
Olympia, Washington 98504-8343 (206)753-4011

INDENTIFICATION SECTION

Field Site No. 1310-N **OAHP No.** **Date Recorded** 13-Feb-95
Site Name Historic Radioactive Liquid Chemical Waste Treatment Facility
Common Golfball/Chemical Waste Storage and Pumphouse/Silo
Field Recorder Kristine m. Bowen, Evaluator: Darby Stapp
Owner's Name U.S. Department of Energy, Richland Operations Office
Address P.O. Box 550
City/State/Zip Code Richland, WA 99352

LOCATION SECTION

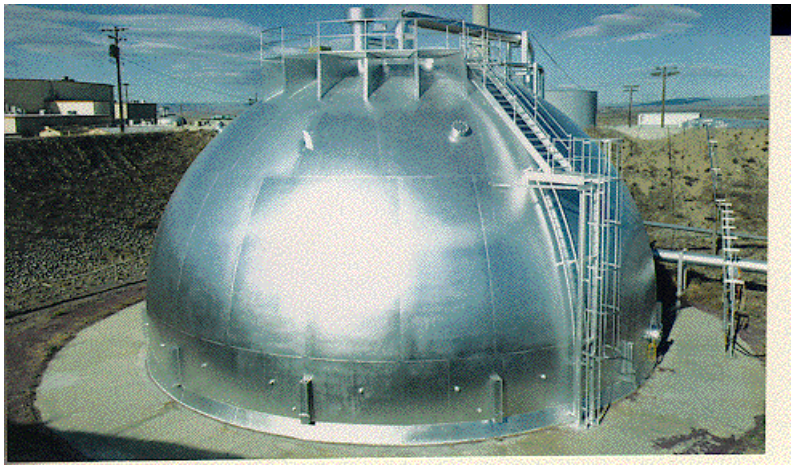
Address 100-N Reactor Area, Building 1310-N
City/Town/County/Zip Code Richland, WA/Benton County/99352
Twp. 14N **Range** 26E **Section** 28 **1/4 Section** NE **1/4 1/4 Sec** SW
Tax No./Parcel No. **Acreage**
Quadrangle or map name Coyote Rapids 7.5 min. series
UTM References Zone 11 **Easting** 303974 **Northing** 5172485
Plat/Block/Lot
Supplemental Map(s) 100-N Area Buildings

Status

- [X] Survey/Inventory
- [ ] National Register
- [ ] State Register
- [ ] Determined Eligible
- [ ] Determined Not Eligible
- [ ] Other (HABS, HAER, NHL)
- [ ] Local Designation

Photography

Photography Neg. No. 8507753-3cn
(Roll No. & Frame No.)
View of Outside of "Golf Ball"
Date 27-Sept-85



Classification [ ] District [ ] Site [ ] Building [X] Structure [ ] Object
Distric Status [X] NR [ ] SR [ ] LR [ ] INV
Contributing [X] **Non-Contributing**
District/Thematic Nomination Nar Hanford Site Manhattan Project and Cold War Era Historic District

Description Section

Materials & Features/Structural Types

Building Type Industrial
Plan Spherical and Irregular
Structural System Steel and Reinforced Concrete
No. of Stories N/A

Roof Type

- [ ] Gable
- [ ] Hip
- [X] Flat
- [ ] Pyramidal
- [ ] Monitor
- [X] Other (specify) N/A
- [ ] Gambrel
- [ ] Shed

Cladding (exterior Wall Surfaces

- [ ] Log
- [ ] Horizontal Wood Siding
  - Rustic/Drop [ ]
  - Clapboard [ ]
- [ ] Wood Shingle
- [ ] Board and Batten
- [ ] Vertical Board
- [ ] Asbestos/Asphalt
- [ ] Brick
- [ ] Stone
- [ ] Stucco
- [ ] Terra Cotta
- [X] Concrete/Concrete Block
- [ ] Vinyl/Aluminum Siding
- [X] Metal (specify) Steel
- [ ] Other (specify)

Roof Material

- [ ] Wood Shingle
- [ ] Wood Shake
- [ ] Composition
- [ ] Slate
- [ ] Tar/Built-up
- [ ] Tile
- [ ] Metal (specify
- [X] Other (specify N/A
- [ ] Not visible

Foundation

- [ ] Log
- [ ] Post & Pier
- [ ] Stone
- [ ] Brick
- [ ] Not visible
- Concrete
  - [ ] Block
  - [X] Poured
  - [ ] Other (specify)

Integrity (Include detailed description in **Description of Physical Appearance**)

	Intact	Slight	Moderate	Extensive
Changes to plan	X			
Changes to windows				
Changes to original cladding	X			
Changes to interior		X		
Other (specify)				

High Styles/Forms (Check one or more of the following)

- [ ] Greek Revival
- [ ] Gothic Revival
- [ ] Italianate
- [ ] Second Empire
- [ ] Romanesque Revival
- [ ] Stick Style
- [ ] Queen Anne
- [ ] Shingle Style
- [ ] Colonial Revival
- [ ] Beaux Arts/Neoclassical
- [ ] Chicago/Commercial Style
- [ ] American Foursquare
- [ ] Mission Revival
- [ ] Spanish Colonial Revival/Mediterranean
- [ ] Tudor Revival
- [ ] Craftsman/Arts & Crafts
- [ ] Bungalow
- [ ] Prairie Style
- [ ] Art Deco/Art Moderne
- [ ] Rustic Style
- [ ] International Style
- [ ] Northwest Style
- [ ] Commercial Vernacular
- [ ] Residential Vernacular (see below)
- [X] Other (specify) Industrial Vernacular

Vernacular House Types

- [ ] Gable Front
- [ ] Gable Front and Wing
- [ ] Side Gable
- [ ] Cross Gable
- [ ] Pyramidal/Hipped
- [ ] Other (specif

NARRATIVE SECTION

Study Unit Themes (check one or more of the following)

[ ] Agriculture	[ ] Conservation	[ ] Politics/Government/Law
[ ] Architecture/Landscape Architecture	[ ] Education	[ ] Religion
[ ] Arts	[ ] Entertainment/Recreation	[ ] Science & Engineering
[ ] Commerce	[ ] Ethnic Heritage (specify)	[ ] Social Movements/Organizations
[ ] Communications	[ ] Health/Medicine	[ ] Transportation
[ ] Community Planning/Development	[ ] Manufacturing/Industry	[X] Other (specify) Manhattan Project & Cold War Era
	[ ] Military	[X] **Study Unit Sub-Theme(s) (specify)** Cold War/Nuclear Fuel Production; Waste Treatment (Liquid)

Statement of Significance

Date of Construction 1964 Architect/Engineer/Builder General Electric

[X] In the opinion of the surveyor, this property appears to meet the criteria of the National Register of Historic Places.
[X] In the opinion of the surveyor, this property is located in a potential historic district (National and/or local).

The 1310-N Facility consists of two structures: a steel tank and a concrete pumphouse silo, which served a secondary role in the waste management subsystem at the 100-N Area. The 900,000-gal (3,407,000-L) steel tank was used for collection of reactor decontamination chemicals and rinse water at the 100-N Area. The chemicals were stored and transferred to either a crib or to a rail loadout station. Approximately 600,000 gal (2,271,000 L) of this capacity was used during reactor decontamination. The pumphouse silo contains values and piping equipment for controlling transfers of waste water between rail car loadout stations, the "golfball" storage tank, and cribs at the 100-N Area. The design and equipment is unique to nuclear decontamination technology and the "golfball" portion of the 1310-N Facility possesses distinctive architectural features which has made it an important piece of the N Reactor visual landscape.

This property is not associated with an important person (Criterion B), does not possess any distinctive architectural features or methods of construction (Criterion C), and does not qualify under Criterion D as the principal source of important information. However, the 1310-N Facility qualifies under Criterion A due to its association with the Cold War production of plutonium at N Reactor, and its contribution to Reactor Operations, specifically the Waste Management System. Therefore, it is the conclusion of the U.S. Department of Energy that the 1310-N Facility is eligible under Criterion A for inclusion on the National Register of Historic Places as a contributing property within the Hanford Site Manhattan Project and Cold War Era Historic District.

Description of Physical Appearance

The spherical steel structure, also known as the "Golfball", is constructed of a high-earthen berm around it. An epoxy coating was applied to the tank interior in 1975 to provide additional protection against potential leakage and to prolong the useful life of the tank. The tank measures 63 ft (19 m) in diameter.

The pumphouse silo is 40 ft (12 m) deep, constructed of reinforced concrete, and houses the waste piping valve pit and sump. It is situated within the berm surrounding the spherical steel structure. The concrete structures maximum measurements are 30 ft by 20 ft (9 m by 6 m); 600 ft^2 (54 m^2). This measurement includes a 26-ft- (8-m) diameter tank connected to a 20-ft- (6-m) long concrete structure. The 1310-N Facility is not operational at this time and no significant changes have been made to these structures.

The N Reactor UTM coordinates are as follows: Northeast corner - 303974E, 5172485N; southeast corner - 303974E, 5171639N; southwest corner - 303069E, 5171639N; northwest corner - 303069E, 5172485N.

Major Bibliographic References

Bechtel Hanford, Inc. 1994. *"Pre-Existing" Conditions Survey of Hanford Site Facilities to be Managed by Bechtel Hanford, Inc*. BHI-00221, Rev. 00, Phase II.
Byrd, W.D. 1962. *Specifications for Chemical Waste Storage Facility Building 1310N*. HWS-5563, Project CAI-816, April 19, 1962.
Westinghouse Hanford Company. 1988. *N Reactor Updated Safety Analysis Report*. WHC-SP-0297, Volume 6, Section 11.3.2.

Chemical Waste Storage Facility Steel Tank & Pipe Support, Drawing No. H-1-32227, 1986.